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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V**

IN THE MATTER OF:

General Die Casting Co.
13700 Mt. Elliot Street
Detroit, Wayne County, Michigan

Respondent:

General Die Casting Company, Inc.

) Docket No.

) **V-W-93-C-18**
) ADMINISTRATIVE ORDER BY
) CONSENT PURSUANT TO SECTION
) 106 OF THE COMPREHENSIVE
) ENVIRONMENTAL RESPONSE,
) COMPENSATION AND LIABILITY
) ACT OF 1980, as amended,
) 42 U.S.C. Section 9606(a)

PREAMBLE

The United States Environmental Protection Agency (U.S. EPA) and the Respondent have each agreed to the making and entry of this Order by Consent (Order).

It is issued pursuant to the authority vested in the President of the United States by Sections 106(a) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. Sections 9606(a), as amended by the Superfund Amendments and Reauthorization Act of 1986, Pub. L. 99-499 (CERCLA), and delegated to the Administrator of the U.S. EPA by Executive Order No. 12580, January 23, 1987, 52 Federal Register 2923, and further delegated to the Assistant Administrator for Solid Waste and Emergency Response and the Regional Administrators by U.S. EPA Delegation Nos. 14-14-A and 14-14-C, and to the Director, Waste Management Division, Region V, by Regional Delegation Nos. 14-14-A and 14-14-C.

A copy of this Order will also be provided to the State of Michigan, which has been notified of the issuance of this Order as required by Section 106(a) of CERCLA, 42 U.S.C. Section 9606(a).

This Order requires the Respondent to undertake and complete emergency removal activities to abate conditions which U.S. EPA has determined may present an imminent and substantial endangerment to the public health or welfare or the environment because of an actual or threatened release of hazardous substances at the site.

This Order supersedes and nullifies Unilateral Administrative Order Docket No. V-W-91-C-109 issued July 30, 1991, to Respondents Richard E. Shirley, William Aikens, and General Die Casting Company, and Unilateral Administrative Order Docket No. V-W-93-C-179 signed on February 3, 1993, and issued to Respondents General Die Casting Company, William Aikens, and Noranda, Inc.

FINDINGS

Based on available information, including the Administrative Record in this matter, U.S. EPA hereby finds:

1. The General Die Casting Company Site (Facility) is located at 13700 Mount Elliot Street, in the City of Detroit, Wayne County, Michigan. The Facility is bordered to the north and south by industrial businesses, to the east by the Consolidated Rail Corporation (CONRAIL) railroad tracks, and to the west by Mt. Elliot Avenue.
2. The Facility is situated in an urban residential and light industrial area and consists of a 21,250 square feet building located on 0.6 acres. In 1990, the population of Detroit, Michigan, was 1,027,974 (according to the U.S. Bureau of the Census). Population within one square city block of the Facility is approximately 1,000.
3. The property and building located at 13700 Mt. Elliot Avenue was initially operated by the Wolverine Die Casting Corporation from the mid-1950's until 1970.
4. Wolverine Die Casting, an indirect subsidiary of Noranda, Inc., leased the Facility and operated it as a zinc die casting and electroplating business from May 1, 1966, until March 31, 1970. In July 1970, the Facility was sold to the General Die Casting Company.
5. General Die Casting electroplated zinc die castings at the Facility from August 1970 until its closure in December 1988. In January 1989, the Facility was sold to William R. Aikens, designated in the sale agreement as "an agent for a corporation to be named at a later date."
6. A level I environmental assessment was conducted on August 31, 1988, by the Toxico Corporation (Toxico) of Southfield, Michigan, on behalf of General Die Casting Company. The Toxico assessment recommended that additional sampling be conducted to evaluate the extent of contamination of the impacted portion of the property on the south side of the Facility, which is owned by the Central Steel and Wire Company (CS&W). Follow up sampling was conducted by Toxico on September 19, 1988, and the analytical report dated January 24, 1989, revealed the presence of polynuclear aromatic hydrocarbons (PNAs). Cyanide and sulfide analysis was not performed on the soil samples collected because, as Toxico advised U.S. EPA, Toxico was informed that the contamination was thought to have resulted from seepage of cutting oil through the concrete wall and floor of the building.

7. CS&W hired Gabriel Laboratories, Ltd., Chicago, Illinois, to conduct an independent assessment of the CS&W property located directly adjacent to the General Die Casting building on July 25, 1989. Analytical results of surface soil samples collected from the area south of the Facility were reported on September 8, 1989, and indicated the presence of PNAs and heavy metals.
8. On July 5, 1990, Toxico submitted a draft workplan to the Michigan Department of Natural Resources Emergency Response Division (MDNR-ERD), Livonia, Michigan office, for soil remediation of the area south of the Facility. The workplan was approved by the MDNR based on information provided by Toxico indicating that the only contamination at the Facility was PNAs. Toxico excavated the contaminated soil south of the Facility beginning on or before July 26, 1990.
9. Gabriel Laboratories collected soil and surface water samples during Toxico's excavation of contaminated soil on July 26, 1990. Analytical results revealed cyanide levels ranging from 75-1700 milligrams per liter (mg/l) in ponded surface water, and between 0.43-250 milligrams per kilogram (mg/kg) in the soil from the area of excavation. Analysis of additional samples collected from the excavated area by Gabriel Laboratories between August 8 and August 10, 1990, revealed cyanide levels ranging from 1673 mg/kg to 12 mg/kg.
10. On August 11, 1990, soil and surface water samples were collected by the MDNR to confirm Gabriel Laboratories' July 26, 1990, soil and water sample results. Analytical results indicated cyanide levels ranging from 87 to 220 mg/kg in the soil, and 755 mg/l in ponded surface water within the excavated area. Additionally, levels of nickel, copper, and zinc were also present in the soil samples.
11. The MDNR-ERD, in a letter dated November 27, 1990, denied the General Die Casting Company's clean closure request submitted on October 15, 1990. The MDNR directed General Die Casting Company to conduct additional investigative and corrective actions to determine the extent of contamination in soil and groundwater throughout the entire Facility, determine the contamination impact on adjacent property owners, address any contamination present, and submit a remedial action plan to achieve appropriate clean up criteria.
12. General Notice letters and Information Requests were issued to Richard Shirley, Julian Van Steenkiste, President of General Die Casting, William Aikens, and Wolverine Die Casting on January 15, 1991.

13. On January 20, 1991, the Technical Assistance Team (TAT) conducted a site assessment of the Facility to evaluate threats posed to human health and the environment at the Facility. The TAT observed approximately twenty-two (22) drums of corrosive and plating treatment waste suspected of containing heavy metals and cyanide. Air monitoring conducted with an organic vapor analyzer (OVA) revealed organic vapors between twenty (20) and thirty (30) parts per million (ppm) above normal background levels. The TAT observed personnel working in the building without level "B" protection, removing equipment and tracking suspected plating waste residue outside. The TAT advised personnel that conditions at the Facility posed potential threats to their health; however, personnel remained in the building for the duration of the assessment. The floor of the plating waste treatment portion of the Facility was covered with two (2) to three (3) inches of light green crystalline material inside the diked containment area. The TAT also observed that contaminated soil on the south side of the building had been excavated and removed from the Facility.
14. On May 3, 1991, the TAT visited the Facility. During this inspection, air monitoring of the building showed no readings above normal background concentrations; however, the TAT noted that the twenty-two (22) drums identified during the previous site assessment had been removed. The waste treatment tanks and plating vats remained at the Facility, still containing significant amounts of material. Most of the light green crystalline material observed previously in the diked area of the waste treatment portion of the Facility had also been removed. The area south of the Facility was backfilled and access restricted by a chain link fence. Information regarding the removal of the drums and treatment area sludge has not been made available to the U.S. EPA at this time.
15. Based upon the site assessment and the failure of the recipients of the General Notice letters to offer to perform the necessary response actions, on July 31, 1991, a Unilateral Administrative Order, Docket No. V-W-92-C-109 ("UAO") requiring performance of an emergency response action was issued to William Aikens, Spartan Metal Finishing, and Richard Shirley of General Die Casting. A conference between Respondent Shirley and U.S. EPA was held shortly thereafter.
16. On January 28, 1992, a representative of CS&W, bordering the Facility to the north, contacted the U.S. EPA Emergency and Enforcement Response Branch (EERB), Grosse Ile, Michigan, office to report that an unknown liquid was being released from the Facility, and stated the material was flowing from the northwest wall of the Facility, across the area that had

previously been identified as containing cyanide in the soil. The On-Scene Coordinator (OSC) and the TAT responded to the situation and found that the eight inch fire main had ruptured and flooded the northwest portion of the building. The OSC observed water flowing from the north wall of the building and migrating across the CS&W property before entering the sewer system on Mt. Elliot Avenue. The City of Detroit Water and Sewer Department shut off the water main leading to the building. The TAT and the OSC then conducted a quick inspection of the remainder of the Facility and determined that a site re-assessment and sampling of tanks, vats, and floors would be needed to document current site conditions.

17. On February 10, 1992, the TAT and OSC conducted a re-assessment of site conditions at the Facility. The TAT and OSC reported that evidence of trespassing and vandalism were observed in several areas of the building. Eleven (11) tanks of plating waste were observed in the eastern portion of the building. Crystalline solids were observed on the floor and walls surrounding the tanks. Analytical results of samples collected from the tanks, floors, and collection sumps revealed elevated levels of heavy metals and extremely elevated levels of cyanide (greater than 600,000ppm). Several of the tanks containing liquid wastes indicated low pH values, and high concentrations of chromium, a corrosive waste water commonly associated with plating operations. A number of vats containing solid material was also observed in various locations throughout the Facility. Two tanks containing strong acids have been observed next to the cyanide bearing floor material. Had a release of acid occurred from these tanks into the reactive cyanide floor material, toxic hydrogen cyanide gas could have been generated which could cause death within one (1) hour if concentrations are greater than or equal to 100 parts per million. A cloud of this gas would not have been contained by the Facility and might have been released to the surrounding area exposing the human and animal population in close proximity to the Facility.
18. U.S. EPA contacted the PRPs, and advised them that, due to the information gathered during the February 10, 1992, site assessment, emergency response activities were required immediately. The PRPs did not agree to perform the necessary response actions set forth in the UAO.
19. On March 13, 1992, U.S. EPA notified the PRPs that U.S. EPA was preparing to begin its response action. U.S. EPA then commenced emergency removal activities to stabilize the threats as determined by U.S. EPA posed by tanks containing acid liquid and cyanide bearing solid materials.

20. On March 19, 1992, a meeting between Richard Shirley, Mr. Shirley's counsel Eric Linden, Esquire, William Aikens, David Nash, Esquire, counsel for Norandex, Inc., and representatives from Central Steel & Wire was held to discuss cleanup activities undertaken by U.S. EPA at the site. During that meeting, the PRPs indicated a desire to negotiate a consent order, and asked U.S. EPA to cease its response actions at a point at which it would be safe and convenient for the PRPs to take over the response action.
21. On March 21, 1992, one-thousand four hundred sixty (1,460) gallons of acid liquids were transported off-site for treatment and disposal. The remaining sludge was removed and placed in poly drums and staged on-site. Personal protective equipment (PPE) and Poly vinyl chloride (PVC) pipe debris which could not be decontaminated was loaded into a roll-off box along with other contaminated debris. All solid materials from the vat, floor, and floor sump were containerized into forty-three (43) drums and staged on-site. Four thousand seven-hundred sixty-nine (4,769) gallons of tank base/neutral liquids were transported off-site for treatment and disposal. Approximately six-hundred (600) gallons of sludge was consolidated into one tank and left on-site. The emptied tanks and building flooring were decontaminated with a liquid solution. All access points to the building were secured and stabilization activities were completed on March 26, 1992. U.S. EPA ceased work at the site based upon the PRPs' offer to negotiate a consent order after the hazardous substances in tanks and containers within the building had been containerized and secured.
22. U.S. EPA subsequently prepared a draft Administrative Order by Consent ("AOC") for Respondents William Aikens, General Die Casting Co., and Noranda Mines Ltd., and sent a copy of the draft to each PRP on May 15, 1992.
23. On May 18, 1992, U.S. EPA received a call that transformers at the General Die Casting site had been vandalized. U.S. EPA went to the site, and discovered that vandals had opened three transformers. Transformer oil containing PCBs at levels ranging from 3.5 to 17 parts per million was flowing down the driveway separating the General Die Casting property and Gallagher Kaiser property bordering the General Die Casting site immediately to the north, and was draining into the Detroit sewer system. On May 18 and 19, 1992, U.S. EPA mobilized to sample, remove, and containerize the spilled and remaining transformer oils. The transformer oils were pumped into an empty clean tank and secured inside the building. On July 21, 1992, the transformer oil was transferred from the tank into seven closed top fifty-five gallon drums, labeled, and transported on July 27, 1992, to an EPA-approved treatment and disposal facility.

24. It is U.S. EPA's position that on June 12, 1992, representatives of U.S. EPA and the PRPs met in Grosse Ile, Michigan, to discuss the draft AOC. U.S. EPA asked the PRPs to commit to pay all past costs of the response action; to pay all oversight costs involved in overseeing the performance of the response action; to arrange for disposal of all containerized materials at the General Die Casting site; to characterize the soils beneath the General Die Casting building; and to characterize and remediate the soils to the south and east of the General Die Casting building. The PRPs agreed to remove the remaining on-site waste and remove or render unusable all containers on site; perform an extent of contamination study on the soils to the south and east of the building; and perform an extent of contamination study on the interior floor and underlying soils of the building. The PRPs could not agree to enter into an agreement to characterize and remediate the soils to the south and east of the General Die Casting building. In addition, the meeting did not resolve any of the issues associated with payment of past costs or future oversight costs.
25. It is U.S. EPA's position that a subsequent conference call between U.S. EPA and the PRPs was held on June 15, 1992. The PRPs renewed the offer made at the meeting in Grosse Ile, Michigan, on June 12, 1992, but advised U.S. EPA that they could not commit to remediating the soils to the south and east of the General Die Casting building, and suggested several options for U.S. EPA's consideration. U.S. EPA stated that it would contact the responsible parties on June 16, 1992, to advise the parties of U.S. EPA's determination regarding the PRPs' proposals. On June 16 and 17, 1992, U.S. EPA advised the PRPs that U.S. EPA was declining the PRPs' offer to perform a portion of the response action, and that U.S. EPA was considering its enforcement options.
26. It is U.S. EPA's position that on June 22, 1992, U.S. EPA was advised that representatives of the PRPs went to the General Die Casting Facility and obtained samples of the hazardous substances present within the General Die Casting building without authorization or approval of U.S. EPA.
27. Subsequently, General Die Casting Company advised U.S. EPA that it was willing to enter into negotiations with U.S. EPA for a consent agreement to perform the response actions embodied in this AOC, but that the other PRPs were unwilling to participate in these negotiations.

DETERMINATIONS

Based on the foregoing Findings, U.S. EPA has determined that:

1. General Die Casting Company is a "facility" as defined by Section 101(9) of CERCLA, 42 U.S.C. Section 9601(9).
2. The Respondent is a "person" as defined by Section 101(21) of CERCLA, 42 U.S.C. Section 9601(21).
3. U.S. EPA has determined that General Die Casting Company is a past owner and operator of the General Die Casting Company site, or arranged for disposal or transport for disposal of hazardous substances at the General Die Casting Company site. Respondent is therefore a liable person under Section 107(a) of CERCLA, 42 U.S.C. Section 9607(a).
4. Cyanide, cadmium, chromium, lead and selenium are "hazardous substances" as defined by Section 101(14) of CERCLA, 42 U.S.C. Section 9601(14).
5. Migration of cyanide off site constitutes an actual or threatened "release" as that term is defined in Section 101(22) of CERCLA, 42 U.S.C. Section 9601(22).
6. The conditions present at the Site constitute a threat to public health, welfare, or the environment based upon the factors set forth in Section 300.415(b)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan, as amended ("NCP"), 40 CFR Part 300. These factors include, but are not limited to, the following:
 - a. actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances, pollutants or contaminants (40 CFR Section 300.415(b)(2)(i));

This factor was present at the Site due to the presence of reactive and corrosive solids and liquids found throughout the building. Analytical results of solid and liquid samples collected from tanks, floor, and floor collection sumps revealed the presence of cyanide at levels above 600,000 ppm and strong acids with pH values of less than 1.0. The tanks containing acids and a high concentration of chromium exhibit the characteristic of corrosivity under the Resource Conservation and Recovery Act (RCRA) (see 40 CFR Section 261.22), and are a listed waste under RCRA (see 40 CFR Section 261.31 (F006)). The cyanide solids exhibit the characteristic of reactivity under RCRA (see 40 CFR Section 261.23). Two tanks containing strong acids were observed next to the cyanide bearing floor material. If a release of acid had occurred from these tanks into the reactive cyanide floor material, toxic hydrogen cyanide gas would have been generated. A cloud of this gas might not have been contained by the Facility and could have been released to the surrounding area exposing the nearby human and animal

populations. The permissible exposure limit (8 hour time weighted average) for cyanide is 5 mg/l. The level of cyanide that is immediately dangerous to life and health is 50 mg/l (50 parts per million (ppm)). If unauthorized access to the Facility had continued, the corrosive nature of the acid and base liquids presented a direct contact threat. During the site visit, workers were observed moving in and out of the building. Ambient air readings obtained using an organic vapor analyzer (OVA) were above those requiring level "B" protection in some areas of the building.

In March 1992, U.S. EPA undertook stabilization activities at the General Die Casting Site. Contents of the tanks, acid and base liquids, were properly transported and disposed of at an approved RCRA treatment and disposal facility. The containerized reactive and corrosive solid, semi-solid acid material, and base-neutral liquids and semi-solids remain on-site and await characterization and disposal at an approved RCRA facility.

- b. hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release (40 CFR Section 300.415(b)(2)(iii));

This factor was present at the Site due to the existence of tanks containing acid and base liquids. Approximately 900 gallons were documented with pH values of less than 1.0, indicating the presence of a characteristic corrosive waste under the RCRA of 1976, as amended (see 40 CFR Section 261.24). In March 1992, U.S. EPA undertook stabilization activities at the Facility including containerizing reactive and corrosive solids, semi-solid acid material, and base-neutral solid materials into drums. The rapidly deteriorating roof has collapsed in several areas of the building, and continued deterioration of the building and roof could result in a compromise of the tanks' and drums' integrity and release of their contents. Damaged dikes surrounding the waste treatment area, cracked cinder block walls, and cracked and broken concrete floor would not contain a release of the tanks' and drums' contents. Trespass and vandalism have also been observed within the Facility. Unrestricted access by vandals increases the potential for a release of material from the tanks. In addition, there were a large number of tanks and drums in the building which contained what appeared to be plating waste water. These containers may have contained cyanide or heavy metals and were removed from the Facility prior to U.S. EPA's stabilization activities.

- c. high levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate (40 CFR Section 300.415(b)(2)(iv));

It is U.S. EPA's position that this factor is present at the Site due to the concentrations of heavy metals and cyanide in the soil south of the Facility. Analytical results provided by the MDNR and Gabriel Laboratories have documented significant levels of nickel, copper, and zinc present in the soil south of the building. These metals are commonly utilized in the process of plating zinc die castings. Analytical results have also revealed cyanide levels in the soil at 250 mg/kg. Ponded surface water found in this area has also indicated cyanide levels ranging between 75 to 1700 mg/l. There are no controls for surface water runoff and during periods of increased precipitation contaminants would be allowed to migrate further off site.

- d. weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released (40 CFR Section 300.415(b)(2)(v));

This factor is present at the Site due to the continued deterioration of the building by the natural elements. The General Die Casting Company ceased operations at the site in 1988, and the building has deteriorated rapidly since 1988. The roof has collapsed in several areas of the building and large holes have been created through removal of ventilation equipment allowing precipitation to enter. Water entering through the roof has been observed migrating through cracks in the concrete floor and walls. Periods of heavy precipitation could also allow contaminants present in the soil to the south of the Facility to continue to migrate off site.

- 7. The actual or threatened release of hazardous substances from the Site may present an imminent and substantial endangerment to the public health, welfare, or the environment within the meaning of section 106(a) of CERCLA, 42 U.S.C. § 9606(a).
- 8. The removal actions required by this Order are necessary to protect the public health, welfare, or the environment, and are not inconsistent with the NCP and CERCLA.

ORDER

Based upon the foregoing Findings and Determinations, and pursuant to Section 106(a) of CERCLA, 42 U.S.C. Section 9606(a), it is hereby ordered and agreed that Respondent will undertake the following actions at the Facility:

1. Within ten (10) business days after the effective date of this Order, the Respondent shall submit to U.S. EPA for approval, a Work Plan for the removal activities ordered as set forth in Paragraph 4 below. The Work Plan shall provide a concise description of the activities to be conducted to comply with the requirements of this Order. The Work Plan shall be reviewed by U.S. EPA, which may approve, disapprove, require revisions, or modify the Work Plan. Respondent shall implement the Work Plan as finally approved by U.S. EPA, including any modifications. Once approved by U.S. EPA, the Work Plan shall be deemed to be incorporated into and made a fully enforceable part of this Order.
2. The Work Plan shall contain a site safety and health plan, a sampling and analysis plan, and a schedule of the work to be performed. The site safety and health plan shall be prepared in accordance with the Occupational Safety and Health Administration (OSHA) regulations applicable to Hazardous Waste Operations and Emergency Response, 29 CFR Part 1910. The Work Plan and other submitted documents shall demonstrate that the Respondent can properly conduct the actions required by this Order.
3. Respondent shall retain a contractor qualified to undertake and complete the requirements of this Order, and shall notify U.S. EPA of the name of such contractor within five (5) business days of the effective date of this Order. U.S. EPA retains the right to disapprove of any, or all, of the contractors and/or subcontractors retained by the Respondent. In the event U.S. EPA disapproves of a selected contractor, Respondent shall retain a different contractor to perform the work, and such selection shall be made within two (2) business days following U.S. EPA's disapproval.
4. Within five (5) business days after U.S. EPA approval of the Work Plan, Respondent shall implement the Work Plan as approved or modified by U.S. EPA. Failure of the Respondent to properly implement all aspects of the Work Plan shall be deemed to be a violation of the terms of this Order. The Work Plan shall require the Respondent to perform, and complete within ninety (90) calendar days after approval, at a minimum, the following removal activities:
 - a) Develop and implement site safety and security measures;
 - b) Develop and implement an air monitoring program for hydrogen cyanide vapor during site activities;

- c) Sample, identify, and dispose of all liquids and sludge found in tanks, vats, and floor sumps;
 - d) Remove, containerize, stage, sample, identify and dispose of all floor, vat, and floor sump solid material;
 - e) Stage, sample, identify, overpack if necessary, and dispose of all drum and small laboratory chemical containers found at the Facility;
 - f) Conduct a sampling program to characterize the type and extent of soil contamination directly beneath and to the south of the Facility. Remediate all affected areas identified, and conduct post cleanup sampling to verify that all contaminated soil has been remediated to cleanup levels as specified by the OSC;
 - g) Transport and dispose of all characterized or identified hazardous substances, pollutants, wastes, or contaminants at a RCRA/CERCLA approved disposal facility in accordance with the U.S. EPA off site policy;
 - h) Conduct a sampling program to characterize the type and extent of contamination in accordance with the approved Work Plan, in the soils beneath the Facility in the areas of the south wall and the former waste water treatment plant of the Facility; and
 - i) Submit a document to U.S. EPA discussing various options for any remediation of the contamination of the soils beneath the Facility in the areas investigated based upon the sampling results.
5. All materials removed from the Facility shall be disposed of or treated at a facility approved by the On-Scene Coordinator and in accordance with the Resource Conservation and Recovery Act of 1976 (RCRA), 42 U.S.C. Section 6901, et seq., as amended, the U.S. EPA Revised Off-Site Policy, and all other applicable Federal, State, and local requirements.
6. On or before the effective date of this Order, the Respondent shall designate a Project Coordinator. The U.S. EPA has designated Peter Guria, of the Emergency and Enforcement Response Branch, Response Section I, as its

On-Scene Coordinator. The On-Scene Coordinator and the Project Coordinator shall be responsible for overseeing the implementation of this Order. To the maximum extent possible, communication between the Respondent and the U.S. EPA, and all documents, reports and approvals, and all other correspondence concerning the activities relevant to this Order, shall be directed through the On-Scene Coordinator and the Project Coordinator. During implementation of the Work Plan, the OSC and the Project Coordinator shall, whenever possible, operate by consensus, and shall attempt in good faith to resolve disputes informally through discussion of the issues.

7. The U.S. EPA and the Respondent shall each have the right to change their respective designated On-Scene Coordinator or Project Coordinator. U.S. EPA shall notify the Respondent, and Respondent shall notify U.S. EPA, as early as possible before such a change is made. Notification may initially be verbal, but shall promptly be reduced to writing.
8. The U.S. EPA On-Scene Coordinator shall have the authority vested in an On-Scene Coordinator by the NCP, 40 CFR Part 300, as amended, including the authority to halt, conduct, or direct any work required by this Order, or to direct any other response action undertaken by U.S. EPA or the Respondent at the Facility.
9. No extensions of the time frames in this Order shall be granted without sufficient cause. All extensions must be requested, in writing, and shall not be deemed accepted unless approved, in writing, by U.S. EPA.
10. This Order and all instructions by the U.S. EPA On-Scene Coordinator or designated alternate that are consistent with the National Contingency Plan and this Order shall be binding upon the Respondent, and the employees, agents, contractors, successors and assigns of the Respondent.
11. To the extent that the Facility or other areas where work under this Order is to be performed is owned by, or in possession of, someone other than the Respondent, Respondent shall attempt to obtain all necessary access agreements. In the event that after using its best effort Respondent is unable to obtain such agreements, Respondent shall immediately notify U.S. EPA and U.S. EPA may then assist Respondent in gaining access, to the extent necessary to effectuate the response activities described herein, using such means as it deems appropriate. Respondent shall reimburse U.S. EPA for all attorneys' fees and court costs it incurs in assisting Respondent to obtain access.

12. Except to the extent that the Facility or other areas where work under this Order is to be performed is owned by, or in possession of, someone other than the Respondent, Respondent shall provide access to the Facility to U.S. EPA employees, and U.S. EPA-authorized contractors, agents, and consultants at anytime, and shall permit such persons to be present and move freely in the area in order to conduct inspections, including taking photographs and videotapes of the Facility, to do cleanup/stabilization work, to take samples, to monitor the work under this Order, and to conduct other activities which the U.S. EPA determines to be necessary. Respondent shall be provided with notice prior to any sampling performed by U.S. EPA.
13. This Order shall be effective on the date of signature by the Director, Waste Management Division.
14. Respondent shall provide a written bi-weekly progress report to the On-Scene Coordinator regarding the actions and activities undertaken under this Order. At a minimum, these progress reports shall describe the actions that have been taken to comply with this Order, including all results of sampling and tests received or prepared by the Respondent and shall describe all significant work items planned for the next week.
15. Respondent agrees to retain for six years following completion of the activities required by this Order copies of all records, files and data relating to hazardous substances found at the Facility, or related to the activities undertaken pursuant to this Order, whether or not those documents were created pursuant to this Order. Respondent shall acquire and retain copies of all documents relating to the Facility that are in the possession of their contractors, agents and employees. Respondent shall notify U.S. EPA at least sixty (60) calendar days before any documents retained under this paragraph are to be destroyed. The documents retained under this paragraph shall be made available to the U.S. EPA upon request.
16. Respondent shall pay all oversight costs of the United States related to the General Die Casting Company site which are not inconsistent with the National Contingency Plan. The United States shall submit an itemized cost statement entitled "Itemized Cost Summary" to Respondent annually or, if sooner, not less than 60 calendar days after submission of the Final Report provided for in Paragraph 24 of this Order. Payments shall be made within 60 calendar days of Respondent's receipt of the cost statement. Payments shall be made to the EPA Hazardous Substances Superfund delivered to the U.S. EPA, Attn: Superfund Accounting, P.O. Box 70753, Chicago, Illinois 60673, in the form of a certified

or cashier's check payable to "EPA Hazardous Substances Superfund." The face of the check should note that the payment is for the General Die Casting site, Superfund Site Identification Number LQ. A copy of the check submitted must be sent simultaneously to the U.S. EPA representatives indicated in Paragraph 17 below.

17. A notice, document, information, report, plan, approval, disapproval or other correspondence required to be submitted from one party to another under the Order shall be deemed submitted either when hand delivered or as of the date of receipt by certified mail, return receipt requested.

Submissions to General Die Casting Co. shall be submitted to:

Eric Linden, Esq.
Jaffe, Raitt, Heuer & Weiss, PC
One Woodward Avenue, Suite 2400
Detroit, Michigan 48226

Submissions to the U.S. EPA shall be submitted to:

Peter Guria
On-Scene Coordinator
U.S. EPA
Response Section I-HS-GI
9311 Groh Road
Grosse Ile, Michigan 48138

and

Mary McAuliffe
Assistant Regional Counsel
U.S. EPA (CS-3T)
77 W. Jackson Blvd.
Chicago, Illinois 60604

18. If any provision of this Order is deemed invalid or unenforceable, the remainder of this Order shall remain in full force and effect.

STIPULATED PENALTIES

19. For each day the Respondent fails to meet the deadlines set forth in the Consent Order and Work Plan, Respondent shall be liable as follows:
 - a. For every calendar day of delay in submitting any documents required by this Consent Order

(such as the Work Plan, bi-weekly reports, and the final report) and the name of the Respondent's contractor and Project Coordinator: \$500 for days 1 to 15; and \$750 for every day thereafter;

- b. For the late submission of the check for oversight costs: \$500 for days 1 to 15; \$750 for every day thereafter;
 - c. For failure to comply with any other provisions of this Consent Order, including failure to comply with any other deadline contained in this Order or the Work Plan, after notice by U.S. EPA of noncompliance: \$500 for days 1 to 15; and \$750 for every day thereafter.
20. All penalties which accrue pursuant to the requirements of this Order shall be paid within fifteen (15) business days of written demand by U.S. EPA. Payment shall be made to the EPA Hazardous Substances Superfund delivered to the U.S. EPA, Attn: Superfund Accounting, P.O. Box 70753, Chicago, Illinois 60673, in the form of a certified or cashier's check payable to "EPA Hazardous Substances Superfund." The face of the check should note that the payment is for the General Die Casting Company site.
21. Pursuant to 31 U.S.C. Section 3717, interest shall accrue on any amount of overdue stipulated penalties at a rate established by the United States Treasury. Stipulated penalties shall accrue, but need not be paid, during any dispute resolution period concerning the particular penalties at issue. If Respondent prevails upon resolution, Respondent shall pay only such penalties as the resolution requires.
22. Payment of Stipulated Penalties will not relieve Respondent from complying with the terms of this Consent Order. U.S. EPA retains the right to seek any remedies or sanctions available to U.S. EPA by reason of Respondent's noncompliance with the provisions of this Consent Order that are not otherwise expressly limited by these Stipulated Penalty provisions.

PENALTIES FOR NONCOMPLIANCE

23. Respondent is advised pursuant to Section 106(b) of CERCLA, 42 U.S.C. Section 9606(b), that violation or subsequent failure or refusal to comply with this Order and any Work Plan approved under this Order, or any portion thereof, may subject the Respondent to a civil penalty of no more than \$25,000 per day for each day in which such violation occurs,

or such failure to comply continues. In addition, failure to properly provide removal action upon the terms of this Order, or other subsequent orders issued by U.S. EPA, may result in liability for punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C Section 9607(c)(3).

TERMINATION AND SATISFACTION

24. The Respondent shall submit a final report summarizing the actions taken to comply with this Order. The report shall contain, at a minimum: identification of the Facility, a description of the locations and types of hazardous substances encountered at the Facility upon the initiation of work performed under this Order, a chronology and description of the actions performed (including both the organization and implementation of response activities), a listing of the resources committed to perform the work under this Order (including financial, personnel, mechanical and technological resources), identification of all items that affected the actions performed under the Order and discussion of how all problems were resolved, a listing of quantities and types of materials removed, a discussion of removal and disposal options considered for those materials, a listing of the ultimate destination of those materials, and a presentation of the analytical results of all sampling and analyses performed and accompanying appendices containing all relevant paperwork accrued during the action (e.g., manifests, invoices, bills, contracts, permits). The final report shall also include an affidavit from a person who supervised or directed the preparation of that report. The affidavit shall certify under penalty of law that based on personal knowledge and appropriate inquiries of all other persons involved in preparation of the report, the information submitted is true, accurate and complete to the best of the affiant's knowledge and belief. The report shall be submitted within sixty (60) calendar days of completion of the work required by the U.S. EPA.
25. The provisions of this Order shall be deemed satisfied upon payment by Respondent of all sums due under the terms of this Order and upon the Respondent's receipt of written notice from U.S. EPA that the Respondent has demonstrated, to the satisfaction of U.S. EPA, that all of the terms of this Order, including any additional tasks consistent with this Consent Order which U.S. EPA has determined to be necessary, have been completed.

INDEMNIFICATION

26. The Respondent agrees to indemnify and save and hold harmless the United States Government, its agencies, departments, agents, and employees, from any and all claims

or causes of action arising from, or on account of, acts or omissions of the Respondent, its officers, employees, receivers, trustees, agents, successors or assigns, in carrying out the activities pursuant to this Order. The United States Government shall not be held as a party to any contract entered into by the Respondent in carrying out activities under this Order.

RESERVATION OF RIGHTS

27. This Order is not intended for the benefit of any third party and may not be enforced by any third party.
28. The U.S. EPA and the Respondent reserve all rights, claims, demands, and defenses, including defenses and denials of and to all determinations and findings, that they may have as to each other except as otherwise provided in this Order pursuant to any available legal authority. Nothing in this Order shall expand the Respondent's ability to obtain preenforcement review of U.S. EPA actions. Respondent agrees to comply with the terms and conditions of this Order and consent to the jurisdiction of the U.S. EPA to enter into and enforce this Order.
29. Nothing herein is intended to release, discharge, limit or in any way affect any claim, causes of action or demands in law or equity which the parties may have against any persons, firm, trust, joint venture, partnership, corporation, or other entity not a party to this Order for any liability it may have arising out of, or relating in any way to, the generation, storage, treatment, handling, transportation, disposal, release or threat of release of any hazardous substance, hazardous waste, contaminant or pollutant at or from the Facility. The parties to this Order hereby expressly reserve all rights, claims, demands and causes of action they may have against any and all other persons and entities who are not parties to this Order.
30. Nothing herein shall be construed: 1) to prevent U.S. EPA from exercising its right to disapprove of work performed by the Respondent; 2) to prevent U.S. EPA from seeking legal or equitable relief to enforce the terms of this Order; 3) to prevent U.S. EPA from taking other legal or equitable action not inconsistent with the Covenant Not To Sue in Paragraphs 41 through 43 of this Order; 4) to prevent U.S. EPA from requiring the Respondent in the future to perform additional activities pursuant to CERCLA, 42 U.S.C. Section 9601 et seq., or any other applicable law; or 5) to prevent U.S. EPA from undertaking response actions at the Facility.

FORCE MAJEURE

31. The Respondent shall cause all work to be performed within the time limits set forth herein and in the approved Work Plan, unless performance is delayed by "force majeure". For purposes of this Order, "force majeure" shall mean an event arising from causes entirely beyond the control of the Respondent and its contractors which delays or prevents the performance of any obligation required by this Order. Increases in costs, financial difficulty, normal inclement weather, and delays encountered by the Respondent in securing any required permits or approvals are examples of events that are not considered to be beyond the control of the Respondent.
32. Respondent shall notify the OSC within 24 hours after Respondent becomes aware of any event which Respondent contends constitutes a force majeure, with subsequent written notice within seven (7) calendar days of the event. Such written notice shall describe: 1) the nature of the delay, 2) the cause of the delay, 3) the expected duration of the delay, including any demobilization and remobilization resulting from the delay, 4) the actions which will be taken to prevent or mitigate further delay, and 5) the timetable by which the actions to mitigate the delay will be taken. Respondent shall implement all reasonable measures to avoid and/or minimize such delays. Failure to comply with the notice provision of this paragraph shall be grounds for U.S. EPA to deny Respondent an extension of time for performance. The Respondent shall have the burden of demonstrating by a preponderance of the evidence that the event is a force majeure, that the delay is warranted under the circumstances, and that best efforts were exercised to avoid and mitigate the effects of the delay. If U.S. EPA determines a delay is or was attributable to a force majeure, the time period for performance under this Order shall be extended as deemed necessary by the OSC to allow performance.

DISPUTE RESOLUTION

33. The Parties to this Order shall attempt to resolve expeditiously and informally any disagreements concerning implementation of this Order on Consent or any Work required hereunder.
34. In the event that any dispute arising under this Order is not resolved expeditiously through informal means, any party desiring dispute resolution under this Section shall give prompt written notice to the other parties to the Order.

35. Within ten (10) calendar days of the service of notice of dispute pursuant to Paragraph 34 above, the party who gave notice shall serve on the other parties to this Order a written statement of the issues in dispute, the relevant facts upon which the dispute is based, and factual data, analysis or opinion supporting its position, and all supporting documentation on which such party relies (hereinafter the "Statement of Position"). The opposing parties shall serve their Statement of Position, including supporting documentation, no later than ten (10) calendar days after receipt of the complaining party's Statement of Position. In the event that these 10-day time periods for exchange of Statements of Position may cause a delay in the work, they shall be shortened upon and in accordance with notice by U.S. EPA.
36. An administrative record of any dispute under this Section shall be maintained by U.S. EPA. The record shall include the written notification of such dispute, and the Statements of Position served pursuant to the preceding paragraphs.
37. Upon review of the administrative record, the Director of the Waste Management Division, U.S. EPA, Region V, shall resolve the dispute consistent with the NCP and the terms of this Order.

NON-ADMISSION

38. The consent of the Respondent to the terms of this Order shall not constitute or be construed as an admission of liability or of U.S. EPA's findings or determinations contained in this Order in any proceeding other than a proceeding to enforce the terms of this Order.

CERCLA FUNDING

39. The Respondent waives any claims or demands for compensation or payment under Sections 106(b), 111 and 112 of CERCLA against the United States or the Hazardous Substance Superfund established by 26 U.S.C. §9507 for, or arising out of, any activity performed or expenses incurred pursuant to this Consent Order.
40. This Order does not constitute any decision on preauthorization of funds under Section 111(a)(2) of CERCLA.

COVENANT NOT TO SUE

41. Upon termination and satisfaction of this Order pursuant to its terms, for and in consideration of the complete and timely performance by Respondent of the obligations agreed to in this Order, U.S. EPA hereby covenants not to sue

Respondent for judicial imposition of damages or civil penalties for any failure to perform obligations agreed to in this Order except as otherwise reserved herein.

42. Performance of the terms of this Order resolves and satisfies the liability of the Respondent to U.S. EPA for work satisfactorily performed under this Order. U.S. EPA recognizes that, pursuant to Section 113 of CERCLA, the Respondent, upon having resolved its liability with the U.S. EPA for the matters expressly covered by this Order, shall not be liable for claims for contribution regarding matters addressed in this Order. Nothing in this Order precludes the Respondent from asserting any claims, causes of action or demands against potentially responsible parties (PRPs) who are not parties to this Order for indemnification, contribution, or cost recovery.
43. In consideration of the actions to be performed by the Respondent under this Order, the U.S. EPA covenants not to sue the Respondent, its successors or assigns for any and all claims which are available to the U.S. as against the Respondent under Sections 106 and 107 of CERCLA concerning all matters satisfactorily performed.

SUBSEQUENT AMENDMENT

44. This Order may be amended by mutual agreement of U.S. EPA and the Respondent. Any amendment of this Order shall be in writing, signed by U.S. EPA and the Respondent and shall have as the effective date, that date on which such amendment is signed by U.S. EPA.

SIGNATORIES

Each undersigned representative of a signatory to this Order certifies that he or she is fully authorized to enter into the terms and conditions of this Order and to bind such signatory, its directors, officers, employees, agents, successors and assigns, to this document.

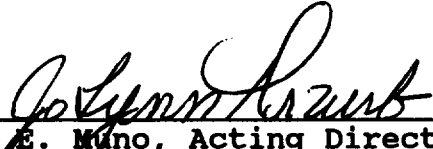
Agreed this 1 day of March, 1993.

By

G. E. Shirley
Chairman of General Electric Company

The above being agreed and consented to, it is so ORDERED
this 16th day of March, 1993.

By



William E. Muno, Acting Director
Waste Management Division
U.S. Environmental Protection Agency
Region V, Complainant